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EXAMINER

PATEL, GAUTAM

ART UNIT

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2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/633,769	Applicant(s) MINAMINO ET AL.	
	Examiner Gautam R. Patel	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-13 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-14 are pending for the examination.

RCE STATUS

2. The request filed on 12/12/06 for Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application is acceptable and a RCE has been established. An action on the RCE follows.

Claim Rejections - 35 U.S.C. § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

the claimed invention is directed to non-statutory subject matter.

Claim 8 does not define what is being claimed but simply states what a recording medium has.

When nonfunctional descriptive material is recorded on some computer-readable medium, in computer or an electromagnetic carrier signal, it is **non statutory** since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e. abstract idea, stored in a computer-readable medium, in a computer or on an electromagnetic carrier signal does not make it statutory. See Diehr, 45 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in Benson were unpatentable as abstract idea because “[t]he sole particle application of the algorithm was in connection with programming of a general purpose computer.”).

Also computer programs claimed as computer listings per, se, i.e., the description or expressions of the programs, are not “physical things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between computer program and other claimed elements of a computer which permit the computer the computer program’s functionality to be realized. See Lower, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 14 has the same problem as above.

NOTE: In this case all we have is a recordable medium which has data arranged on it. All mediums have kind of data arranged on it, details of this arranged data does not make it patentable as such.

Language such as “computer readable recording medium having encoded thereon a computer program which causes the computer to perform the following steps:

- a.
- b.” etc. may be acceptable.

Claim Rejections - 35 U.S.C. § 112

4. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7 are rejected under 35 U.S.C. 112 first paragraph, as containing subject matter which was not described in the specification in such way as to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Specification does not explain how modulation rule [which is state-type rule] is created or what is actually a state-type rule is.

Claim Rejections - 35 U.S.C. § 112

5. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 and 14 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 3 are confusing now because it not clear at all how “state-type modulation rule” and “a digital sum value” are equivalent and one can be replaced with another. More importantly what is state-type modulation rule? Specification does not explain this so called state-type modulation rule at all.

Claim 3 has the similar problem.

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Claim 8, lines 1-5 are confusing and unclear. It is not clear at all what is being claimed here. Claim is neither an apparatus nor a method, it simply states medium having some data on it. All mediums inherently has some data on it.

As to claim 14 it is not clear at all if it is an apparatus claim or a method claim. Claim does not clearly set forth the metes and bounds of the patent protection desired.

6. A search based on the best understanding of the claims has been made to find the most pertinent art, but no statement about invention will be appropriate at this time regarding the allowableness of claims 1-8 and 14 and no art rejection will be made in this office action regarding the claims 1-8 and 14, due to the speculation required to interpret the claims because of their indefiniteness under 35 U.S.C. 112, 1st and 2nd paragraphs as noted above (see *In re Steele*, 134 USPQ 292).

7. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new grounds of rejection. As to arguments for the rest of the claims, please see explanation below.

8. Applicant's arguments filed on 7/21/06 have been fully considered but they are not deemed to be persuasive for the following reasons.

In the REMARKS, the Applicant argues as follows:

A) That: "MPEP § 2106.IV.B.1 explains that a computer-readable medium encoded with a data structure represents statutory subject matter provided the functional interrelationship between data structure and computer software and hardware components which permits ..." [page 6, paragraph 4; REMARKS].

FIRST: The Examiner agrees with the statement in MPEP. However the functionality is NOT realized and proper language is missing.

SECOND: See notes under 101 rejection.

B)That; “the Examiner may have misunderstood the language of claims 1, 7 and 8 as previously amended

Where the prescribed modulation rule is state type modulation rule, the at least one parameter ... ” [page 7-8, paragraphs 4 to 2; REMARKS].

It seems the Applicants are merely repeating what is in only two places, in the specification, the statements regarding so called state-type modulation rule.

This does NOT explain what state-type modulation is or more importantly what state-type modulation rule is.

Allowable Subject Matter

9. Claims 9-13 are allowable over prior art of record.

NOTE: Claims 9-13 are allowable over the prior art of record since the cited references taken individually or in combination fails to particularly disclose an apparatus which includes an offset amount changing section for changing “offset amount of a recording position of each data included in the series of recording data from a prescribed reference position until reference position reaches a target value”. It is noted that the closest prior art, Tanoue et al. (US 6,128,260) shows a similar apparatus which shows similar invention with different recording position for data so as to protect the disc from damage and Miyagawa et al. US 6,510,116 shows some concept of changing start edge position of the recording pulse. However both references fails to disclose a reaching of target value of an offset amount. Also Tanoue selects starting position based on random number as compared to applicant’s invention of precise linear fixed steps are taken to reach a target value.

Other prior art cited

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Miyagawa et al. (US. Patent 6510110).

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Contact information

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2600) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.

Gautam R. Patel
Primary Examiner
Group Art Unit 2627

January 22, 2007

Response to Amendment

1. This is in response to amendment filed on 4/24/07.
2. claims 1-7 and 9-13 remain for examination.

OBJECTION TO NEW MATTER ADDED TO CLAIMS

3. The amendment filed 4/24/07 is objected to under 35 U.S.C. 132(a) because it introduces **new matter** into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: “State-type modulation rule which may be represented by a conversion table including a current state field, a current data symbol field, a converted adapt symbol field, and a next state field, wherein for given current state and current adapt symbol, there is a corresponding converted adapt symbol and corresponding next state”

Applicant is required to cancel the new matter in the reply to this Office Action.

4. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had **possession of the claimed invention**. Following aspects are neither described nor explained in the specification at all. They do not exist in the specification. “a state type modulation rule which may be represented by a conversion table including a current state field, a current data symbol field, a converted adapt symbol field, and a next state field, wherein for given current state and current adapt symbol, there is a corresponding converted adapt symbol and corresponding next state”. Specification has words to state-type rule and some aspects of conversion table, however their relationship is not

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shown or explained. Words state-type rule and conversion table does not show up in the same paragraph, much less explained any relationship.

Claim Rejections - 35 U.S.C. § 112

5. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-7 are rejected under 35 U.S.C. 112 first paragraph, as containing subject matter which was not described in the specification in such way as to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Specification does not explain how modulation rule [which is state-type rule] is created or what is actually a state-type rule is. The explanation that is now given in the paper dated 4/24/07 finds **NO** support at all in the specification. And this is clearly a new matter.

Claim Rejections - 35 U.S.C. § 112

6. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-7 are confusing now because it not clear at all how “state-type modulation rule” and “a digital sum value” are equivalent and one can be replaced with another. More importantly explanation of state-type modulation rule is not supported by the specification? **Original Specification** does not explain this so called state-type modulation rule at all.

7. A search based on the best understanding of the claims has been made to find the most pertinent art, but no statement about invention will be appropriate at this time regarding the allowableness of claims 1-7 and no art rejection will be made in this office action regarding the claims 1-7, due to the HEAVY speculation required to interpret the claims because of their

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indefiniteness under 35 U.S.C. 112, 1st and 2nd paragraphs as noted above (see *In re Steele*, 134 USPQ 292).

8. Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new grounds of rejection. As to arguments for the rest of the claims, please see explanation below.

9. Applicant's arguments filed on 7/21/06 have been fully considered but they are not deemed to be persuasive for the following reasons.

In the REMARKS, the Applicant argues as follows:

A) That: "Applicants respectfully submit that what is meant by "state-type modulation rule" is as recited in the claims is sufficiently clear to those having ordinary skill in the art. Nonetheless in order to expedite favorable prosecution applicants have amended claims 1 and 7 therein ..." [page 6, paragraph 4; REMARKS].

FIRST: The Examiner disagrees with the this would be sufficiently clear to one of ordinary skill in the art. The Examiner thinks this will not be clear to even one of extra-ordinary skill in the art much less one ordinary skill in the art.

SECOND: More importantly all the explanation that are given in newly amended claims are clearly **NEW MATTER** and must removed.

THIRD: Also see rejection 112 first above.

ALLOWABLE SUBJECT MATTER

10. Claims 9-13 are allowable over prior art of record for reasons stated before.

11. Applicant's amendment necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE FINAL**. See M.P.E.P. § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

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A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Contact information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2600) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.



**GAUTAM R. PATEL
PRIMARY PATENT EXAMINER**

Gautam R. Patel
Primary Examiner
Group Art Unit 2627

May 19, 2007